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(54) CONFIGURATION OF MOBILE COMMUNICATION DEVICES

KONFIGURATION VON MOBILKOMMUNIKATIONSEINRICHTUNGEN

CONFIGURATION DE DISPOSITIFS DE COMMUNICATION MOBILES

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Description

Field of the Invention

[0001] This invention relates to the field of communications, and more particularly to the field of configuring features of a mobile communication device.

Background

[0002] With the development of communication technology, it is now common for users of communication systems to have a mobile communication device which is adapted to make use of more than one communication service and/or network (for example GSM cellular communications, broadband to home and WLAN in the office). Such communication devices may include wireless (for example cellular) mobile devices, laptop computers and Personal Digital Assistants (PDAs). These communication devices may establish communications over one or more communication networks, such as circuit-switched and packet-based wireless communication networks, using appropriate communication protocols.

[0003] Depending on the location of a communication device, particular communication services and networks may be available. Furthermore, location dependent information may be available and/or required for the communication device to make best use of an available communication network/service.

[0004] Typically information is 'pulled' on demand by a user of a communication device. This requires the user to be proactive in locating information and/or configuring a communication device in order to use an available communication network/service.

[0005] However, most users do not make use of such functionality due to the time and effort required to correctly locate available information and configure the communication device. This is particularly problematic for a user that frequently changes location, since repeated configuration of their communication device would be laborious and time-consuming.

[0006] US 2003/0143988A1 discloses a system for automatically downloading software applications to a remote terminal. In one example, the system uses wide area service location protocols to facilitate geographic location-based automatic download to the associated terminal.

[0007] US 2003/0064731 describes use of a GPS system to dynamically change communication capabilities of a mobile device depending on its location.

[0008] It is therefore desirable to develop an improved communication system which enables a communication device to make use of more than one communication service and/or network, preferably at little or even zero inconvenience to a user of the communication device.

Brief Description of the Drawings

[0009] For a better understanding of the invention, embodiments will now be described, purely by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a high-level block diagram of a system according to an embodiment of the invention; and
Figure 2 is an exemplary flow diagram of a method of configuring a mobile communication device according to an embodiment of the invention.

Detailed Description of the Invention

[0010] According to an aspect of the invention, there is provided a communication system comprising: a mobile communication device configurable to communicate to one or more networks using one of a plurality of communication protocols; and a configuration server adapted to determine the location of the mobile communication device and to send configuration information to the mobile communication device, the configuration information being based upon the determined location of the mobile communication device. This configuration information may enable the mobile communication device to change the preferred network connection, for example from cellular to wireless LAN connectivity.

[0011] According to another aspect of the invention, there is also provided a method of configuring a mobile communication device in a communication system in which a plurality of communication protocols are used for delivering services to the mobile communication device, wherein the method comprises: determining the location of the mobile communication device; and sending configuration information to the mobile communication device, the configuration information being based upon the determined location of the mobile communication device; and configuring the mobile communication device based on the configuration information.

[0012] The invention provides a communication system comprising a plurality of terminals, including one or more mobile communication devices, a plurality of communication protocols for delivering calls to the terminals, and a configuration server adapted to determine the location of the mobile communication device. Based upon the determined location of the mobile communication device, the configuration server configures a service of the mobile communication device.

[0013] Information about the location of a mobile communication device, and therefore its user, is used to determine the most appropriate or preferred way of delivering a communication service via one or more communication networks. Each communication network may use one or more different communication protocols, for example an Internet protocol (IP) network may use TCP and/or UDP protocols.

[0014] At present, it is likely that a typical communica-

tion service to be routed by the invention is a telephone call. However, the invention is also applicable to other communication services such as video calls, Short Message Service (SMS) messages, Electronic mail, and other personalized media, to name but a few.

[0015] The delivery of the communication service can be made using a choice of appropriate communication protocol (i.e. cellular or Voice over Internet Protocol (VoIP)) and/or communication network (i.e. Public Switched Telephone Network (PSTN), cellular, or VoIP service provider using a broadband internet connection).

[0016] The communication service(s) that may be delivered to a mobile communication device can be dependent on a predetermined user preference with respect to the location of the mobile communication device. Assuming that the user carries an associated mobile communication device, and that the mobile communication device therefore goes wherever the user goes, information about the location of the user can be obtained from the mobile communication device. In other words, the mobile communication device may be used to track the movement and/or location of its user. Purely by way of example, such location information can be obtained from the mobile communication device using appropriate techniques such as zone location technologies, Global Positioning Satellites (GPS), triangulation, and cell ID.

[0017] Using such location information about the mobile communication device, the configuration server is able to determine and carry out configuration management of the device to enable use of a preferred communication protocol and/or service available. For example, parameters of the device may be changed to ensure that the device will correctly operate at a specific location. Also, power saving measures may be employed by turning on/off specific communication modules of the mobile device according to which communication networks or services are available at the location of the mobile device.

[0018] For a better understanding, an example of a communication system according to the invention will now be described with reference to Figure 1.

[0019] The system 100 of Figure 1 determines the location of a mobile communication device and configures functions of the mobile communication device 110 based upon the determined location of the mobile communication device. To store and process information regarding the location of the user (or their associated mobile communication device), the system 100 includes a routing server 120.

[0020] A mobile communication device 110, such as a cellular phone or a PDA, is associated with a user. The user carries the mobile communication device 110 so that it goes wherever the user goes. Thus, when the user moves within the range of a certain communication network, for example a wireless Local Area Network (wLAN) at the office, the mobile communication device 110 also moves within the range of the communication network. Device locating means within the mobile communication device 110 are adapted to detect the location of the de-

vice and/or detect that the communication network is available and to inform the configuration server 120 of the determined location of the mobile communication device. It should, however, be understood that the device location could instead be determined by the communication network without requiring device locating means within the device.

[0021] The configuration server 120 stores updated information regarding the location of the user in suitable storage means, such as a database or table.

[0022] Using such location information about the mobile communication device, the configuration server is able to perform configuration management of the device to enable use of a preferred available protocol/network. Also stored by the configuration server is information relating to user's preference as to which communication protocol, network and/or device functions should be employed when the user is at a particular location. For example, the user may have defined that they prefer to use the mobile communication device to make/receive telephone calls using VoIP over their wireless LAN when at home.

[0023] When the configuration server 120 is informed that the user's mobile communication device 110 has moved to a new location, wherein the available communication protocols and/or networks may be different, the configuration server 120 uses information relating to the new location against stored user information and determines the appropriate configuration of the mobile communication device 110.

[0024] In other words, the role of the configuration server 120 is to configure the functionality of a mobile communication device 110, the configuration being based upon the determined location of the mobile communication device 110. Further, the choice of appropriate configuration may also be based on additional factors, such as cost, quality of service or any other Service Level Agreement (SLA) parameter.

[0025] The configuration server 120 is linked to a communication network 130 via an appropriate communication link 135 (potentially an IP connection over a shared LAN). Whenever a change in location is determined by the mobile communication device 110, updated location information is sent by the mobile communication device 110 to the configuration server 120 via the communication network 140.

[0026] Preferably, the configuration server 120 is also in communication with the mobile communication device 110 via a mobile communication network 140 (i.e. cellular network). Using the mobile communication network 140, the mobile communication device 110 sends information about the determined location of the mobile communication device 110 to the configuration server 120. Thus, if the mobile communication device 110 is unable to use the communication network 130 (for example, not within the network coverage range) to provide updated location information to the configuration server 120, the mobile communication network 140 can instead be used.

[0027] The most recent location information can be used to determine the location of the mobile communication device 110 if it is in a location that provides poor or no access to a communication network. This overcomes a problem wherein, if the location of a mobile communication device is determined at the time a user first attempts to use a communication service on the device, the location of device cannot be determined because it has no access to a communication network.

[0028] First 150 to third 170 user zones are defined at or with respect to particular locations.

[0029] In the example shown, the first user zone 150 is an area of wireless network coverage provide by a wireless access point 175, the wireless access point 175 being connected to the communication network 130 via an Asynchronous Digital Subscriber Line (ADSL) link 180. Thus, a mobile communication device having a wireless communication module for communicating via a wireless network may use the communication network 130 when it is within the area of location for the first user zone 150. Here, the first user zone is the user's home.

[0030] The second user zone 160 is the user's office of work. The office comprises a VoIP terminal interface 185 (for example, a docking station having an analogue telephone adapter) that is adapted to connect a communication device to the communication network 130 via an IP based office PBX 190. A mobile communication device having a communication module adapted to communicate via the PSTN terminal interface 185 can therefore be linked to the communication network 130 when it is at the second user zone 150.

[0031] The third user zone 170 is a wireless hotspot area having access to a wireless communication network link 195 which uses a predetermined communication protocol. Within the third user zone 170, a mobile communication device having a suitable communication module (i.e. a wireless LAN communication module) can make use of the wireless communication link 195 in order to access the communication network 130.

[0032] As discussed above, when the mobile communication device 110 is moved to a new location, for example when it enters first user zone 150, the new location is detected and information regarding the detected location is sent to the configuration server 120 (via the mobile communication network 140).

[0033] The configuration server 120 uses the received location information to determine how the mobile communication device should be configured. In determining the appropriate device configuration, the configuration server 120 uses stored information regarding the specification of the mobile communication device. The configuration server 120 may also use further factors when determining the most appropriate configuration. These factors can include user defined preferences as to which is the most appropriate device configuration, costing considerations and Quality of Service (QoS) considerations. Although it is likely that the user defined preferences will take into account costing and QoS considerations, it is

also envisaged that the configuration server 120 may overrule the user defined preferences by placing more importance on other factors.

[0034] Once it is determined how the mobile communication device 110 should be configured, an appropriate set of instructions is sent to the device (via the same communication network that the location information was sent to the configuration server 120). The set of instructions is adapted to the specification of the mobile communication device 110 and causes the device 110 to be configured as determined by the configuration server 120, for example by activating/deactivating specific functions and changing aspects of the user interface of the mobile communication device 110. Thus, the mobile communication device 110 is automatically configured as required (i.e. to make use of the communication links available at a specific location), without any user intervention.

[0035] Of course, the configuration server 120 is not limited to simply modifying the settings or functions of a mobile communication device, but may also provide location-specific information to the phone. For example, information about the location may be provided to the mobile device 110 and automatically communicated to its user via a display of the device.

[0036] For a better understanding of the invention, an exemplary scenario in which reconfiguration of a mobile communication device is required will now be described with reference to Figure 1.

[0037] In this example, a user (hereinafter referred to as "UserA") is away from home and the office. In fact, UserA is abroad with a mobile communication device 110 (a mobile phone in this example) in their possession.

[0038] The mobile phone of UserA has a wireless communication module that can make/receive calls via a VoIP protocol via a wireless LAN (such as that in the first user zone 150). Of course, the mobile phone 110 can also make/receive calls using a standard cellular communication network, such as that designated by reference 140 in Figure 1.

[0039] Notably, UserA's hotel is adapted to provide a local WLAN hotspot with a communication link to the communication network 130, therefore enabling guests of the hotel to access a communication service of the network 130 using a WLAN enabled device. In other words, the hotel is equivalent to the third user zone 170.

[0040] Because the mobile phone 110 is constantly monitoring its location and the available communication networks/links, the mobile phone 110 recognizes when UserA is within the third user zone (wireless hotspot zone at the hotel), and updates the configuration server with the appropriate location information. The configuration server 120 receives the location information and uses it in conjunction with information it holds regarding the specification of the mobile phone.

[0041] The configuration server 120 accordingly determines that the mobile phone is able to make use of the available WLAN hotspot and sends a configuration in-

struction to the mobile phone which causes the mobile phone to turn on the wireless LAN functionality. Thus, whilst at the hotel, UserA can use the mobile phone to access the communication network 130 via the wireless hotspot without having to manually change any settings of the mobile phone.

[0042] Further, when UserA subsequently leaves the hotel, he/she leaves the third user zone 170. The mobile phone detects the change in location and/or available communication links and updates the configuration server 120 accordingly (i.e. by sending location information via the mobile communication network 140).

[0043] Accordingly, the configuration sever determines that the mobile phone is no longer able to make use of the wireless communication link 195. The configuration sever 120 then sends a configuration instruction to the mobile phone 110 which causes the mobile phone 110 to turn off its wireless LAN functionality.

[0044] When UserA returns home (i.e. UserA enters first user zone 150), the mobile phone detects the change in location and/or available communication links and updates the configuration server 120 accordingly. The configuration sever then determines that the mobile phone able to make use of the ADSL communication link 180 via the wireless access point 175 of the first user zone 150, and sends a configuration instruction to the mobile phone 110 which causes the mobile phone 110 to turn on its wireless LAN functionality and configure it for the home WLAN. This may include using a WLAN identifier and link encryption keys.

[0045] Of course, the device configuration server 120 may also be adapted to configure the mobile phone based on other information, such as information relating to the user or status of the mobile phone.

[0046] Further, the configuration server 120 may also be adapted to deliver software and other content to the mobile phone based upon its determined location. In this way, configuration parameters, such as the Service Set Identifier (SSID) and cryptographic keys, of the mobile phone's WLAN interface can be changed to ensure that the phone will operate correctly and/or efficiently at a specific location. For example, the configuration server 120 may be adapted to store a list of all the content (i.e. documents and passwords) that a user may require to use at a specific location. This may include generic and user/device-specific information. Depending on the determined location of a device, the configuration sever may send the appropriate information (i.e. passwords) to the device based on the stored list of content. Equally, passwords that are no longer required can be removed.

[0047] Of course, information regarding the current content and/or configuration of a mobile communication device may also be provided to the configuration server, so that the configuration server is able to minimize the amount of instructions and content sent to the mobile device. In order to reduce the amount of stored information if such an approach is adopted, the configuration server can also be adapted to delete the stored informa-

tion when the mobile communication device leaves the location (i.e. when the configuration server is updated with new location information from the mobile device).

[0048] It will be appreciated that the invention provides an automatic mobile device configuration arrangement which allows a mobile device to be optimally configured according to the location of the device, wherein little or no involvement from the user of the mobile device is required.

[0049] If a user enters a new location, where there are multiple ways to deliver content and/or communication services to a mobile device of the user, the invention can be used to automatically configure the device so that it can make use of the available content and/or services, despite the fact that the user has no knowledge of how the device should be configured. Thus, the invention removes the need for a user to repeatedly reconfigure a mobile communication device as they move between locations.

[0050] Also the invention can be arranged to automatically configure a mobile communication device to use the lowest cost or highest quality communication network/link, which a user of the device would otherwise not select due to lack of awareness.

[0051] By managing a mobile communication device automatically, an improved range of services can be provided to a mobile communication device at multiple locations. Further, the invention allows for power savings to be made since it can automatically deactivate functions of a mobile device when they are not required.

[0052] The invention does not require the user to purchase, install or use special equipment in order to benefit from its advantages.

[0053] While specific embodiments have been described herein for purposes of illustration, various modifications will be apparent to a person skilled in the art and may be made without departing from the scope of the invention.

Claims

1. A configuration server (120), for use in a communication system, comprising:

means adapted to determine the location of a mobile communication device (110) and to send configuration information to the mobile communication device (110), the configuration information being based upon the determined location of the mobile communication device (110) and on information related to a preference defined by a user mobile device as to a communication protocol, network or device function, to be employed when the user (110) is located at a pre-determined location, the mobile communication device (110) being configurable to communicate using one of a plu-

ality of communication protocols;
 wherein the configuration information comprises a set of instructions to be used within the mobile communication device (110); and
 wherein the configuration server is adapted to:

send a first instruction to the device (110) to turn on a wireless LAN functionality responsive to determining that the device (100) is in the predetermined location, and
 send a second instruction to the device (110) to turn off the wireless LAN functionality responsive to determining that the device (110) is not in the predetermined location.

2. A configuration server according to claim 1, wherein the configuration information sent by the configuration server (120) is based on information relating to at least one of: a user of the mobile communication device (110); and the status of the mobile communication device (110).
3. A configuration server (120) according to any preceding claim, wherein the configuration server (120) comprises a content unit for communicating electronic content to or from the mobile communication device (110) based upon the determined location of the mobile communication device (110).
4. A configuration server according to claim 3, wherein the content unit is adapted to communicate the electronic content based on information relating to at least one of: a user of the mobile communication device (110); and the status of the mobile communication device (110).
5. A configuration server (120) according to any preceding claim, wherein the mobile communication device (110) comprises means for establishing the location of the mobile communication device (110) and is adapted to send information relating the established location to the configuration server (120).
6. A method of configuring a mobile communication device in a communication system in which a plurality of communication paths are usable for delivering services to the mobile communication device (110), wherein the method comprises:

determining (210) the location of the mobile communication device (110); and
 sending configuration information to the mobile communication device (110) and on information related to a preference defined by a user mobile device as to a communication protocol, network or device function, to be employed when the user is located at a predetermined location, the

configuration information being based upon the determined location of the mobile communication device (110);
 configuring (240) the mobile communication device (110) based on the configuration information;
 wherein the configuration information comprises a set of instructions to be executed within the mobile communication device; and
 wherein a first instruction turns on a wireless LAN functionality responsive to determining that the device (100) is in the predetermined location, and
 wherein a second instruction turns off the wireless LAN functionality responsive to determining that the device (110) is not in the predetermined location

7. A method according to claim 6, wherein the configuration information is based on information relating to at least one of: a user of the mobile communication device (110); and the status of the mobile communication device (110).
8. A method according to any of claims 6 to 7, further comprising the step of delivering electronic content to the mobile communication device (110) based upon the determined location of the mobile communication device (110).
9. A method according to claim 8 wherein the step of delivering electronic content is based on information relating to at least one of: a user of the mobile communication device (110); and the status of the mobile communication device (110).
10. A method according to any of claims 6 to 9, wherein the step of determining the location of the mobile communication device (110) is completed within the mobile communication device (110), and the method further comprises the step of communicating information relating to the determined location of the mobile communication device (110) from the mobile communication device (110) to the routing to the configuration server (120).
11. A computer program comprising computer program code means adapted to perform all of steps of any of claims 6 to 10 when said program is run on a computer.

Patentansprüche

1. Konfigurationsserver (120) zur Verwendung in einem Kommunikationssystem, Folgendes umfassend: Mittel, die angepasst sind, den Standort einer mobilen Kommunikationsvorrichtung (110) zu be-

stimmen und Konfigurationsinformationen an die mobile Kommunikationsvorrichtung (110) zu senden, wobei die Konfigurationsinformationen auf dem bestimmten Standort der mobilen Kommunikationsvorrichtung (110) und auf Informationen basieren, die sich auf eine durch eine mobile Benutzervorrichtung definierte Präferenz dahin gehend beziehen, welche(s) Kommunikationsprotokoll, Netzwerk oder Vorrichtungsfunktion eingesetzt werden soll, wenn der Benutzer (110) an einem vorgegebenen Standort positioniert ist, wobei die mobile Kommunikationsvorrichtung (110) konfigurierbar ist, um unter Verwendung eines von mehreren Kommunikationsprotokollen zu kommunizieren; wobei die Konfigurationsinformationen einen Satz Anweisungen umfassen, der in der mobilen Kommunikationsvorrichtung (110) verwendet werden soll; und wobei der Konfigurationsserver zu Folgendem angepasst ist:

Senden einer ersten Anweisung an die Vorrichtung (110) zum Einschalten einer drahtlosen LAN-Funktionalität als Reaktion auf ein Bestimmen, dass sich die Vorrichtung (100) an dem vorgegebenen Standort befindet, und
Senden einer zweiten Anweisung an die Vorrichtung (110) zum Ausschalten der drahtlosen LAN-Funktionalität als Reaktion auf ein Bestimmen, dass sich die Vorrichtung (110) nicht an dem vorgegebenen Standort befindet.

2. Konfigurationsserver nach Anspruch 1, wobei die Konfigurationsinformationen, die durch den Konfigurationsserver (120) gesendet werden, auf Informationen basieren, die sich auf Folgendes beziehen: einen Benutzer der mobilen Kommunikationsvorrichtung (110); und/oder den Status der mobilen Kommunikationsvorrichtung (110).
3. Konfigurationsserver (120) nach einem der vorhergehenden Ansprüche, wobei der Konfigurationsserver (120) eine Inhaltseinheit zum Kommunizieren von elektronischem Inhalt an die oder von der mobilen Vorrichtung (110) basierend auf dem bestimmten Standort der mobilen Kommunikationsvorrichtung (110) umfasst.
4. Konfigurationsserver nach Anspruch 3, wobei die Inhaltseinheit angepasst ist, den elektronischen Inhalt basierend auf Informationen zu kommunizieren, die sich auf Folgendes beziehen: einen Benutzer der mobilen Kommunikationsvorrichtung (110); und/oder den Status der mobilen Kommunikationsvorrichtung (110).
5. Konfigurationsserver (120) nach einem der vorhergehenden Ansprüche, wobei die mobile Kommunikationsvorrichtung (110) Mittel zum Bestimmen des

Standortes der mobilen Kommunikationsvorrichtung (110) umfasst und angepasst ist, Informationen, die sich auf den bestimmten Standort beziehen, an den Konfigurationsserver (120) zu senden.

6. Verfahren zum Konfigurieren einer mobilen Kommunikationsvorrichtung in einem Kommunikationssystem, in dem mehrere Kommunikationspfade zum Liefern von Dienstleistungen an die mobile Kommunikationsvorrichtung (110) verwendbar sind, wobei das Verfahren Folgendes umfasst:

Bestimmen (210) des Standortes der mobilen Kommunikationsvorrichtung (110); und Senden von Konfigurationsinformationen an die mobile Kommunikationsvorrichtung (110) und auf Informationen, die sich auf eine durch eine mobile Benutzervorrichtung definierte Präferenz dahin gehend beziehen, welche(s) Kommunikationsprotokoll, Netzwerk oder Vorrichtungsfunktion eingesetzt werden soll, wenn der Benutzer an einem vorgegebenen Standort positioniert ist, wobei die Konfigurationsinformationen auf dem bestimmten Standort der mobilen Kommunikationsvorrichtung (110) basieren;
Konfigurieren (240) der mobilen Kommunikationsvorrichtung (110) basierend auf den Konfigurationsinformationen;
wobei die Konfigurationsinformationen einen Satz Anweisungen umfassen, der in der mobilen Kommunikationsvorrichtung ausgeführt werden soll; und
wobei eine erste Anweisung als Reaktion auf ein Bestimmen, dass sich die Vorrichtung (100) an dem vorgegebenen Standort befindet, eine drahtlose LAN-Funktionalität einschaltet, und
wobei eine zweite Anweisung als Reaktion auf ein Bestimmen, dass sich die Vorrichtung (110) nicht an dem vorgegebenen Standort befindet, die drahtlose LAN-Funktionalität ausschaltet.

7. Verfahren nach Anspruch 6, wobei die Konfigurationsinformationen auf Informationen basieren, die sich auf Folgendes beziehen: einen Benutzer der mobilen Kommunikationsvorrichtung (110); und/oder den Status der mobilen Kommunikationsvorrichtung (110).
8. Verfahren nach einem der Ansprüche 6 bis 7, ferner den Schritt des Liefern von elektronischem Inhalt an die mobile Kommunikationsvorrichtung (110) basierend auf dem bestimmten Standort der mobilen Kommunikationsvorrichtung (110) umfassend.
9. Verfahren nach Anspruch 8, wobei der Schritt des Liefern von elektronischem Inhalt auf Informationen basiert, die sich auf Folgendes beziehen: einen Benutzer der mobilen Kommunikationsvorrichtung

(110); und/oder den Status der mobilen Kommunikationsvorrichtung (110).

10. Verfahren nach einem der Ansprüche 6 bis 9, wobei der Schritt des Bestimmens des Standortes der mobilen Kommunikationsvorrichtung (110) in der mobilen Kommunikationsvorrichtung (110) abgeschlossen wird und das Verfahren ferner den Schritt des Kommunizierens von Informationen, die sich auf den bestimmten Standort der mobilen Kommunikationsvorrichtung (110) beziehen, von der mobilen Kommunikationsvorrichtung (110) an das Routing an den Konfigurationsserver (120), umfasst.
11. Computerprogramm, Computerprogrammcodemittel umfassend, die angepasst sind, alle Schritte nach einem der Ansprüche 6 bis 10 durchzuführen, wenn das Programm auf einem Computer ausgeführt wird.

Revendications

1. Serveur de configuration (120) destiné à être utilisé dans un système de communication, comprenant : des moyens adaptés pour déterminer l'emplacement d'un dispositif de communication mobile (110) et pour envoyer des informations de configuration au dispositif de communication mobile (110), les informations de configuration étant basées sur l'emplacement déterminé du dispositif de communication mobile (110) et sur des informations relatives à une préférence définie par un dispositif mobile d'utilisateur en tant que protocole de communication, réseau ou fonction de dispositif, à utiliser lorsque l'utilisateur (110) est situé à un emplacement prédéterminé, le dispositif de communication mobile (110) étant configurable pour communiquer en utilisant un protocole de communication parmi une pluralité de protocoles de communication ; dans lequel les informations de configuration comprennent un ensemble d'instructions à utiliser dans le dispositif de communication mobile (110) ; et dans lequel le serveur de configuration est adapté pour :
- envoyer une première instruction au dispositif (110) pour activer une fonctionnalité de réseau local sans fil en réponse à la détermination que le dispositif (100) est à l'emplacement prédéterminé, et
- envoyer une seconde instruction au dispositif (110) pour désactiver la fonctionnalité de réseau local sans fil en réponse à la détermination que le dispositif (110) n'est pas à l'emplacement prédéterminé.
2. Serveur de configuration selon la revendication 1, dans lequel les informations de configuration en-

voyées par le serveur de configuration (120) sont basées sur des informations concernant au moins l'un des éléments suivants : un utilisateur du dispositif de communication mobile (110) ; et l'état du dispositif de communication mobile (110).

3. Serveur de configuration (120) selon l'une quelconque des revendications précédentes, dans lequel le serveur de configuration (120) comprend une unité de contenu pour communiquer un contenu électronique vers ou depuis le dispositif de communication mobile (110) sur la base de l'emplacement déterminé du dispositif de communication mobile (110).
4. Serveur de configuration selon la revendication 3, dans lequel l'unité de contenu est adaptée pour communiquer le contenu électronique sur la base d'informations concernant au moins l'un des éléments suivants : un utilisateur du dispositif de communication mobile (110) ; et l'état du dispositif de communication mobile (110).

5. Serveur de configuration (120) selon l'une quelconque des revendications précédentes, dans lequel le dispositif de communication mobile (110) comprend des moyens pour établir l'emplacement du dispositif de communication mobile (110) et est adapté pour envoyer des informations reliant l'emplacement établi au serveur de configuration (120).
6. Procédé de configuration d'un dispositif de communication mobile dans un système de communication, dans lequel une pluralité de voies de communication est utilisable pour fournir des services au dispositif de communication mobile (110), le procédé comprenant :

la détermination (210) de l'emplacement du dispositif de communication mobile (110) ; et l'envoi d'informations de configuration au dispositif de communication mobile (110) et sur des informations relatives à une préférence définie par un dispositif mobile d'utilisateur en tant que protocole de communication, réseau ou fonction de dispositif, à utiliser lorsque l'utilisateur est situé à un emplacement prédéterminé, les informations de configuration étant basées sur l'emplacement déterminé du dispositif de communication mobile (110) ; la configuration (240) du dispositif de communication mobile (110) sur la base des informations de configuration ; dans lequel les informations de configuration comprennent un ensemble d'instructions à exécuter dans le dispositif de communication mobile ; et dans lequel une première instruction active une fonctionnalité de réseau local sans fil en réponse

à la détermination que le dispositif (100) est à l'emplacement prédéterminé, et dans lequel une seconde instruction désactive la fonctionnalité de réseau local sans fil en réponse à la détermination que le dispositif (110) n'est pas à l'emplacement prédéterminé. 5

7. Procédé selon la revendication 6, dans lequel les informations de configuration sont basées sur des informations relatives à au moins l'un des éléments suivants : un utilisateur du dispositif de communication mobile (110) ; et l'état du dispositif de communication mobile (110). 10
8. Procédé selon l'une quelconque des revendications 6 à 7, comprenant en outre l'étape consistant à fournir un contenu électronique au dispositif de communication mobile (110) sur la base de l'emplacement déterminé du dispositif de communication mobile (110). 15 20
9. Procédé selon la revendication 8, dans lequel l'étape de fourniture d'un contenu électronique est basée sur des informations relatives à au moins l'un des éléments suivants : un utilisateur du dispositif de communication mobile (110) ; et l'état du dispositif de communication mobile (110). 25
10. Procédé selon l'une quelconque des revendications 6 à 9, dans lequel l'étape de détermination de l'emplacement du dispositif de communication mobile (110) est achevée dans le dispositif de communication mobile (110), et le procédé comprend en outre l'étape de communication d'informations relatives à l'emplacement déterminé du dispositif de communication mobile (110) du dispositif de communication mobile (110) vers le routage vers le serveur de configuration (120). 30 35
11. Programme informatique comprenant un moyen de code de programme informatique adapté pour effectuer toutes les étapes de l'une quelconque des revendications 6 à 10 lorsque ledit programme est exécuté sur un ordinateur. 40 45

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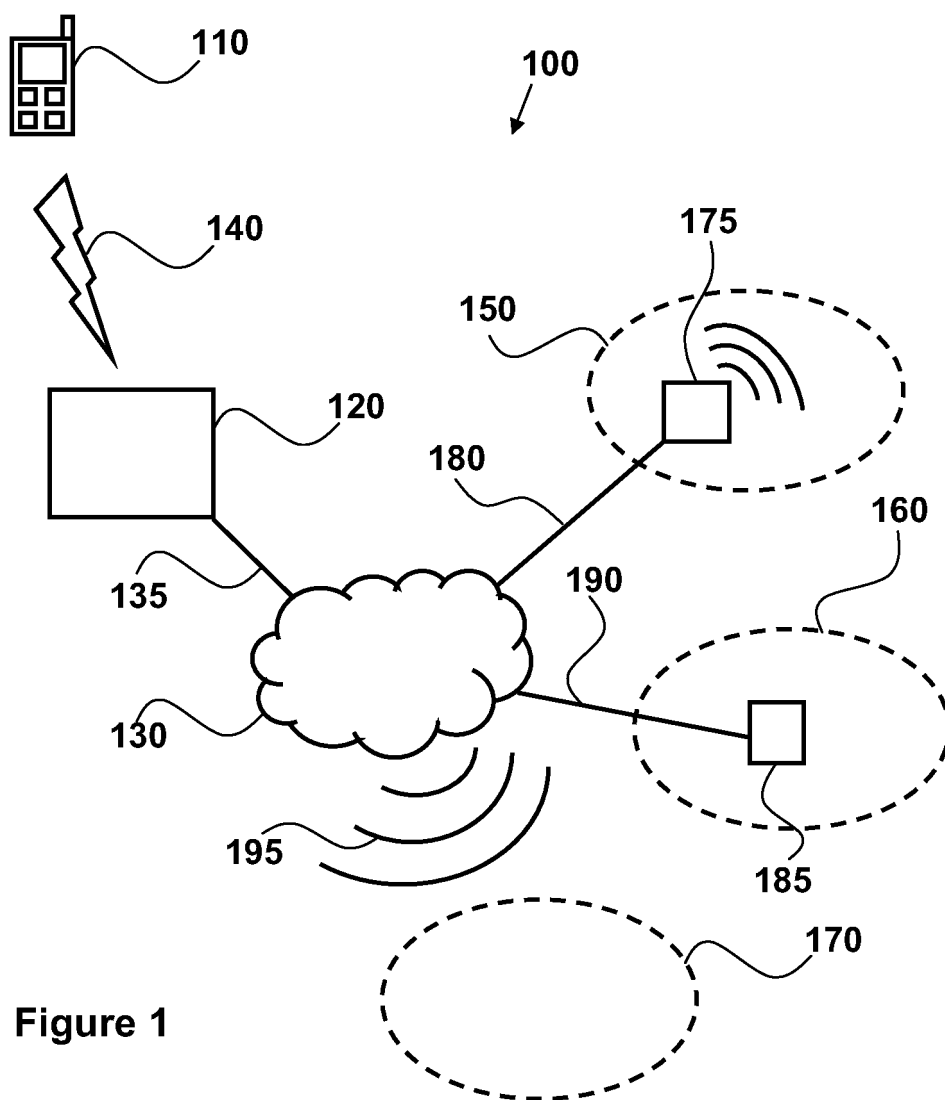


Figure 1

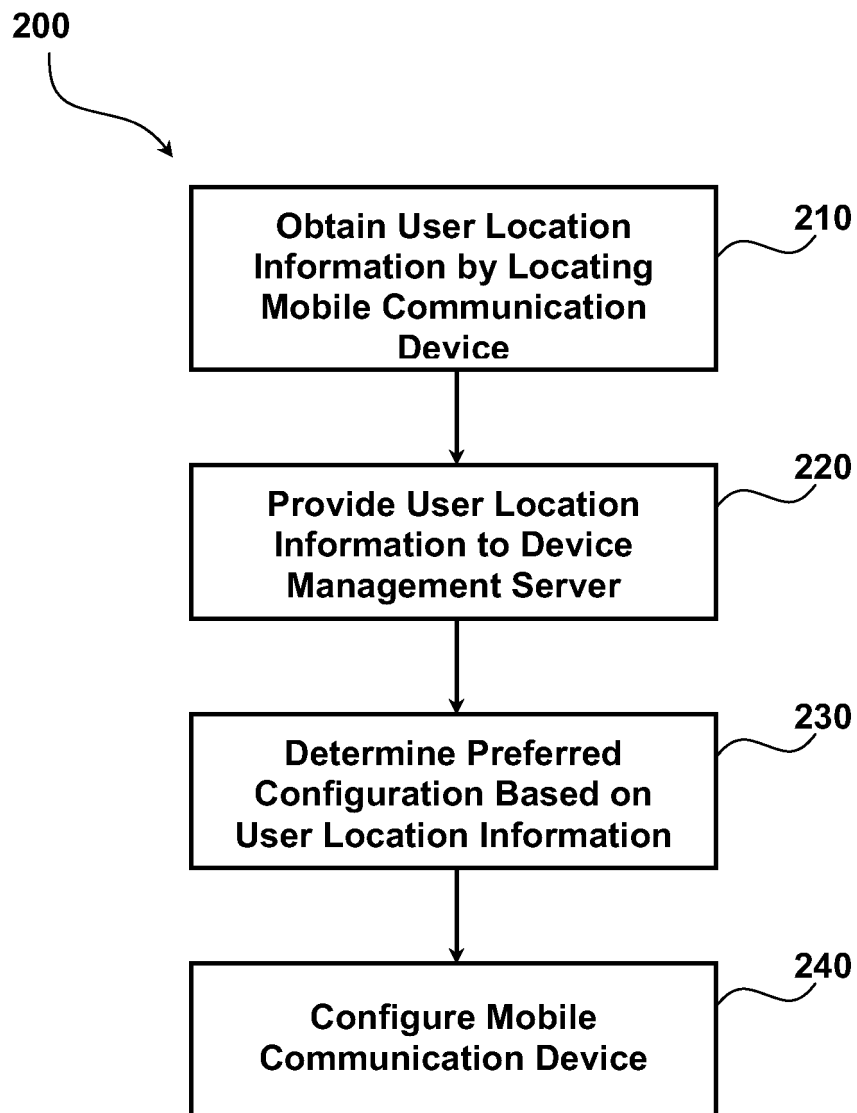


Figure 2

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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